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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/659,839	09/11/2003	Helmut Schlessmann	A 91 829/lr	5182

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EXAMINER

DUONG, THANH P

ART UNIT PAPER NUMBER

1764

DATE MAILED: 09/22/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/659,839

Applicant(s)

SCHLESSMANN ET AL.

Examiner

Tom P. Duong

Art Unit

1764

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 11 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 3/26/04, 6/12/06, 9/11/03.

- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 1-5, 10, 14, and 16 are rejected under 35 U.S.C. 102(b) as being anticipated by Jourdan (4,628,689). Jourdan discloses a catalytic converter (3) for the after-treatment of exhaust gas of an internal combustion engine, comprising: a housing (6a, 6b) having an internal space (27,28) for receiving exhaust gas therethrough, wherein surfaces of walls of said housing facing said internal space are at least partially provided with catalytically active material (Col. 4, lines 56-65) in a flow path between inlet (19) and outlet (21) means for exhaust gas, and hollow domes (24) disposed on oppositely disposed walls (Figure 3) of said housing, wherein said hollow domes extend into said internal space, wherein free ends of said hollow domes are provided with said outlet means (26), and wherein the free ends of those hollow domes on one of said walls extend beyond free ends of those hollow domes of the oppositely disposed wall; wherein a plurality of hollow domes (24) are provided on each of said oppositely disposed wall of said housing, and wherein the hollow domes on one said walls extend into spaces between the hollow domes of the oppositely disposed wall; housing

composed of two shells (6a, 6b) and shell made of one piece drawn parts of plate metal; domes have an essentially cylindrical configuration (Figure 3); shell portions (6a, 6b) rest against one another via a periphery flange collar (18); embodied for use in a muffler and forms an inlet of said muffler (Col. 2, lines 10-24); and housing is provided with aligned holes for receiving fixing or mounting elements that extend through said opening (Figure 3). Note, instant claims structurally reads on the apparatus of Karlsson et al. '026.

2. Claims 1, 3-4, 7-9, and 13-16 are rejected under 35 U.S.C. 102(b) as being anticipated by Karlsson et al. (6,109,026). Karlsson et al. '026 discloses a catalytic converter (1) for the after-treatment of exhaust gas of an internal combustion engine, comprising: a housing (13, 14) having an internal space for receiving exhaust gas therethrough, wherein surfaces of walls of said housing facing said internal space are at least partially provided with catalytically active material (Col. 3, lines 11-64) in a flow path between inlet and outlet means for exhaust gas, and hollow domes (32) disposed on oppositely disposed walls (Figure 7) of said housing, wherein said hollow domes extend into said internal space, wherein free ends of said hollow domes are provided with said outlet means (9), and wherein the free ends of those hollow domes on one of said walls extend beyond free ends of those hollow domes of the oppositely disposed wall; wherein said shell portions (13, 14) are one-piece drawn parts of plate metal (Figure 7); wherein said free ends of said hollow domes (32) extend nearly to the oppositely disposed wall while forming flow gap (space between plates 6 and 7);

wherein the flow gap of outwardly disposed ones of said hollow domes has a reduced cross-section; wherein outer surface of said hollow domes (32) are provided with a catalytically active coating (Col. 5, lines 39-65); wherein said outlet means provided on said free ends of said hollow domes form an outlet for said catalytic converter (Figure 7); embodied for use in a muffler and forms an inlet of said muffler (Col. 5, lines 25-37); wherein said catalytic converter is installed in said muffler, an inlet means of said housing in the form of an inlet window is disposed at the same level as an inlet opening of said muffler (Col. 3, lines 1-10); said housing (13, 14) is provided with aligned holes for receiving fixing or mounting elements that extend through said opening (Col. 6, lines 27-35). Note, instant claims structurally reads on the apparatus of Karlsson et al. '026.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 5-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Karlsson et al. '026. With respect to the shape of the hollow domes, it would have been an obvious matter of design choice to one having ordinary skill in the art to select the appropriate shape of the dome to increase the turbulence flow and increase contact time between the gas flow and the catalyst layer in order to improve the treatment of the

exhaust gas as evidenced by Karlsson (Col. 5, lines 39-60 and Col. 6, lines 20-27). Furthermore, the court has held that a mere a change in shape is within the level of ordinary skill in the art in view of the absence of unexpected results. See *In re Dailey*. MPEP 2144.04.

4. Claims 10-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Karlsson et al. '026 in view of Patent Application Publication 2001/00254408 (hereinafter PAP '408). Regarding claims 10-13, Karlsson et al. '026 discloses the shell portions (13,14) with pot-shaped configuration but fails to disclose the shell portions are connected by means of an edge bead in the vicinity of said flange collar. PAP '408 teaches the shells (4,6) of a muffler (2) is joined together by a first and second flange portions (8, 10) with a bead (14) in the vicinity of said flange collar and such joining structure provide the benefits of a tight seal without using any sealing and packing material, which simplify the manufacturing process and minimize manufacturing cost. (Sections 0016-0018). Thus, it would have been obvious in view of Karlsson to one having ordinary skill in the art to modify the shell portions of Karlsson with the flange collar having edge bead as taught by PAP '408 in order to gain the above benefits.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tom P. Duong whose telephone number is (571) 272-2794. The examiner can normally be reached on 8:00AM - 4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Caldarola can be reached on (571) 272-1444. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Tom Duong  
September 14, 2006

*TD*

  
Glenn Caldarola  
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